

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 10-12 and 14 are pending in the application. Claim 14 has been cancelled and new claims 15-27 have been added in this reply. No new matter has been added by way of this amendment. Claims 10 and 21 are independent. The remaining claims depend, directly or indirectly, from claims 10 and 21.

Objections

The specification was objected to for typographical errors. The specification has been amended in this reply to clarify the present invention recited. Accordingly, withdrawal of the objection is respectfully requested.

Rejection(s) under 35 U.S.C. § 112

Claims 10-12 and 14 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claim 14 has been cancelled in this reply. Thus, the rejection of claim 14 is now moot. Claims 10-12 have been amended in this reply to clarify the present invention recited.

Specifically, claim 10 has been amended to recite an electrically driven power steering apparatus wherein a presser member has a thread for engaging a thread of a ball screw nut and a connecting device limits a relative rotation between the presser member and the ball screw nut even if a bonding force between the threads is lost. Claim 11 has been amended to

recite a connecting device that limits a relative rotation by means of a shearing force of a resin member. Claim 12 has been amended to recite a connecting device that limits a relative rotation by a part of the presser member deformed toward the ball screw nut. In view of these amendments, withdrawal of this rejection is respectfully requested.

Rejection(s) under 35 U.S.C. § 102

Claims 10 and 12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,155,376 issued to Cheng (“Cheng”). Claims 10 and 12 have been amended in this reply to clarify the present invention recited. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

It is desirable that parts for vehicles are manufactured with low costs and the manufacturing processes thereof are reduced to the minimum requirements. Applicants have discovered, through detailed experiments and studies, a possibility that a presser member may loosen due to impacts and vibrations in an electrically driven power steering apparatus. According to claim 10, as amended, the presser member has a connecting device to limit the relative rotation between the presser member and the ball screw nut, even if a bonding force between the threads is lost. According to claim 12, a relative rotation between the presser member and the ball screw nut is limited by deforming a part of the presser member toward the ball screw nut.

Cheng discloses a lock nut (80). The lock nut of Cheng does not stop a relative rotation of the lock nut if a thread thereof loosens. Cheng is completely silent with respect to limiting relative rotation as now claimed. Cheng fails to show or suggest a thin cylindrical portion that is deformed. Additionally, Cheng does not show or suggest a connecting device, as

recited in the claims. Thus, claims 10 and 12 are patentable over Cheng. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 10 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,988,311 issued to Kuribayashi, *et al* (“Kuribayashi”). Claims 10 and 12 have been amended in this reply to clarify the present invention recited. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

Kuribayashi discloses a lock nut (34). The lock nut of Kuribayashi does not stop a relative rotation of the lock nut if a thread thereof loosens. Kuribayashi is completely silent with respect to limiting relative rotation as now claimed. Kuribayashi fails to show or suggest a thin cylindrical portion that is deformed. Additionally, Kuribayashi does not show or suggest a connecting device as recited in the claims. Thus, claims 10 and 12 are patentable over Kuribayashi. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection(s) under 35 U.S.C. § 103

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng in view of U.S. Patent No. 5,000,636 issued to Wallace (“Wallace”). Claim 11 depends on claim 10. Claims 10 and 11 have been amended in this reply to clarify the present invention recited. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

As discussed above, Cheng fails to show or suggest the present invention as recited in claim 10. The lock nut of Cheng does not stop a relative rotation of the lock nut if a thread thereof loosens. Cheng does not show or suggest a connecting device as recited in the claims. Additionally, Cheng fails to show or suggest the use of a shearing force of a resin

member as recited in claim 11. Wallace discloses a deposit (15,17) for restraining a thread loosening, but it cannot stop a relative rotation of the thread if a bonding force of the thread is lost. Wallace fails to show or disclose that which Cheng lacks with respect to claim 10. Thus, claim 11 is patentable over Cheng and Wallace, whether considered separately or in combination. Dependent claims are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuribayashi in view of Wallace. Kuribayashi fails to teach the use of a shearing force of a resin member and the device of Kuribayashi does not stop a relative rotation of the lock nut if a thread thereof loosens. As discussed above, Wallace fails to show or suggest limiting the rotation of a presser member with respect to a ball screw nut even if a bonding force of the thread is lost. Thus, claim 11 is patentable over Kuribayashi and Wallace, whether considered separately or in combination. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng in view of U.S. Patent No. 5,827,027 issued to Wakabayashi (“Wakabayashi”). Claim 14 has been cancelled in this reply. Thus, this rejection is now moot.

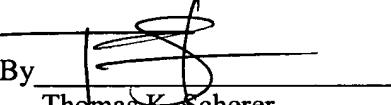
Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuribayashi in view of Wakabayashi. Claim 14 has been cancelled in this reply. Thus, this rejection is now moot.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 10122/005002).

Dated:

Respectfully submitted,

By 

Thomas K. Scherer
Registration No.: 45,079
OSHA · LIANG LLP
1221 McKinney St., Suite 2800
Houston, Texas 77010
(713) 228-8600
(713) 228-8778 (Fax)
Attorney for Applicant

Attachments